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#### ABSTRACT

Methods, compositions and articles of manufacture involving cationic conjugated conformationally flexible polymers are provided. A method for the synthesis of cationic 10 water-soluble polymers with linkages along the polymer main chain structure which disrupt the ability of the polymers to form extended-rod structures is provided. Such polymers may serve in the fabrication of novel optoelectronic devices and in the development of highly efficient biosensors. The invention further relates to the application of these polymers in assay methods.

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